

Integrated Research, Education, and Extension Competitive Grants Program – National Integrated Water Quality Program

Conservation Effects Assessment Project (CEAP)

Evaluating the Effects of Conservation Practices on Watershed Health within the Biophysical Setting of a Grazing Land Watershed

FY 2008 Supplemental Request for Applications

APPLICATION DEADLINE: June 17, 2008



U.S. Department of Agriculture



Cooperative State Research, Education, and Extension Service

**COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE;
U.S. DEPARTMENT OF AGRICULTURE**

**INTEGRATED RESEARCH, EDUCATION, AND EXTENSION COMPETITIVE
GRANTS PROGRAM – NATIONAL INTEGRATED WATER QUALITY PROGRAM**

**CONSERVATION EFFECTS ASSESSMENT PROJECT (CEAP): EVALUATING THE
EFFECTS OF CONSERVATION PRACTICES ON WATERSHED HEALTH WITHIN
THE BIOPHYSICAL SETTING OF A GRAZING LAND WATERSHED**

SUPPLEMENTAL ANNOUNCEMENT

CATALOG OF FEDERAL DOMESTIC ASSISTANCE: This program is listed in the Catalog of Federal Domestic Assistance under 10.303.

DATES: Applications must be received by close of business (COB) on **June 17, 2008** (5:00 p.m. Eastern Time). Applications received after this deadline will normally not be considered for funding. Comments regarding this request for applications (RFA) are requested within six (6) months from the issuance of this notice. Comments received after that date will be considered to the extent practicable.

STAKEHOLDER INPUT: The Cooperative State Research, Education, and Extension Service (CSREES) is requesting comments regarding this RFA from any interested party. These comments will be considered in the development of the next RFA for the program, if applicable, and will be used to meet the requirements of section 103(c)(2) of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7613(c)(2)). This section requires the Secretary to solicit and consider input on a current RFA from persons who conduct or use agricultural research, education and extension for use in formulating future RFAs for competitive programs. Written stakeholder comments on this RFA should be submitted in accordance with the deadline set forth in the DATES portion of this Notice.

Written stakeholder comments should be submitted by mail to: Policy, Oversight, and Funds Management Staff; Office of Extramural Programs; Cooperative State Research, Education, and Extension Service; USDA; STOP 2299; 1400 Independence Avenue, SW; Washington, DC 20250-2299; or via e-mail to: RFP-OEP@csrees.usda.gov. (This e-mail address is intended only for receiving comments regarding this RFA and not requesting information or forms.) In your comments, please state that you are responding to the National Integrated Water Quality Program (NIWQP) – Conservation Effects Assessment Project (CEAP) RFA.

EXECUTIVE SUMMARY: CSREES requests applications for the Integrated Research, Education, and Extension Competitive Grants Program—Conservation Effects Assessment Project (CEAP) for fiscal year (FY) 2008 to develop research, and extension projects aimed at improving the watershed health of grazing land watersheds across the Nation. Grazing land is a collective term used by the USDA-Natural Resources Conservation Service (NRCS) for rangeland, pastureland, grazed forestland, native and naturalized pasture, hayland, and grazed cropland (<http://www.nrcs.usda.gov/TECHNICAL/NRI/ceap/grazing.html>). Grazing land CEAP

is a joint effort with NRCS. In FY 2008, CSREES anticipates that approximately \$2 million will be available to support CEAP projects, including funds contributed by NRCS. This RFA is a supplement to the FY 2008 National Integrated Water Quality Program (NIWQP) RFA. It identifies the objectives for CEAP projects, the eligibility criteria for projects and applicants, and the application forms and associated instructions needed to apply for a CEAP grant.

CEAP seeks to fund projects that evaluate the effects of grazing land conservation practices, especially with respect to understanding how the suite of conservation practices, the timing of these activities, and the spatial distribution of these practices throughout a watershed influence their effectiveness for achieving locally defined watershed health goals. An extensive body of literature exists that describes plot- or field-scale conservation practices aimed at protecting watershed health. However, research results from plot- and field-scale studies are limited in that they cannot capture the complexities and interactions of conservation practices within a watershed. CEAP responds to a need to conduct research that: 1) evaluates the impacts of interactions among conservation practices and their biophysical setting on watershed health at the watershed scale; and 2) evaluates social and economic factors influencing implementation and maintenance of practices. CEAP also responds to a need to conduct extension/outreach education to transfer knowledge from this research to farmers, ranchers, community leaders, decision-makers, and other stakeholders.

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PART I—FUNDING OPPORTUNITY DESCRIPTION

A. Legislative Authority and Background

Section 406 of the Agricultural Research, Extension, and Education Reform Act of 1998 (AREERA) (7 U.S.C. 7626) authorized the Secretary of Agriculture to establish a research, education, and extension competitive grants program to provide funding for agricultural activities with a total integrated, multifunctional research, education, and extension approach (see definition in Part VIII, E.). Subject to the availability of appropriations to carry out this program, the Secretary may award grants to colleges and universities (as defined by section 1404 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977 (NARETPA) (7 U.S.C. 3103)) on a competitive basis for integrated research, education, and extension projects. Grants are to be awarded to address priorities in United States agriculture that involve integrated research, education, and extension activities as determined by the Secretary in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board (NAREEEAB). Section 7206 of the Farm Security and Rural Investment Act of 2002 amended section 406(b) of AREERA to add the 1994 Land-Grant Institutions as eligible to apply for grants under this authority.

CSREES will administer the Integrated Research, Education, and Extension Competitive Grants Program by determining priorities in U.S. agriculture through Agency stakeholder input processes in consultation with the NAREEEAB. Each RFA will be developed each FY based on these established priorities and approaches to solving the critical agricultural issues. While the overall approach to solving critical agricultural issues, priorities, or problems will be through an integration of research, education, and extension activities within each individual program, component RFAs, depending on the priority addressed, may request applications that are research, education, or extension only, or a combination thereof.

B. Purpose and Priorities

CEAP is a program area within the National Integrated Water Quality Program (NIWQP). The goal of the NIWQP is to contribute to the improvement of the quality of our Nation's surface water and groundwater resources through research, education, and extension activities. Projects funded through this program will facilitate achieving this goal by advancing and disseminating the knowledge base available to agricultural, rural, and urbanizing communities. Funded projects should lead to science-based decision-making and management practices that improve the quality of the Nation's surface water and groundwater resources in agricultural, rural, and urbanizing watersheds.

Priorities for the NIWQP CEAP are consistent with the *Final Report of the Blue Ribbon Committee Conducting an External Review of the USDA Conservation Effects Assessment Project* (http://www.swcs.org/documents/CEAP_Final_Report.pdf, SWCS 2006) and the CEAP National Assessment Grazing Lands (<http://www.nrcs.usda.gov/TECHNICAL/NRI/ceap/grazing.html>, NRCS 2007) and are responsive to recommendations from the NAREEEAB. A description of the purpose and priorities of the CEAP program area follows:

FY 2008 Program Priorities include:

- Developing case studies at intensively monitored watersheds suitable for investigating the effectiveness of multiple conservation practices in solving watershed health problems related to grazing land use at the watershed scale.
- Applying an appropriate range of quantitative interpretive techniques and geographically-based methods, including physical, statistical, and landscape modeling methods to the analysis of the effects of grazing land conservation practices.
- Expanding knowledge on the watershed health of grazing land watersheds to better inform decision-making for and management of grazing land watersheds.

Conservation Effects Assessment Project (Program Area 110.E)

The long-term goal of this program area is to optimize the achievement of locally-defined watershed health goals through: (1) the selection of a suite of applicable conservation practices; (2) the geographic distribution of these practices throughout a watershed; and (3) the timing of implementation of conservation activities.

An extensive body of literature exists that describes conservation practices aimed at protecting and improving watershed health. Our intent in adopting watershed health rather than water quality and availability is to ultimately indicate the effects of conservation practices, allow project directors working on arid and semiarid watersheds, without long-term continuous water flow data, to apply. We define watershed health as the balance and sustainability over time of socio-cultural and economic needs with ecological function and integrity of a watershed; and healthy watersheds exhibit the capacity for ecological self-repair within a natural range of variability, allowing goals for sustainable uses, values and services to be met (or provide your own reasonable and logical definition of watershed health). Much of the work that describes effects of conservation practices on grazing lands was conducted at the plot- or field-scale, and there is little documentation on the effectiveness of these practices in actually restoring watershed health. Inferences drawn from plot- and field-scale studies are limited in that they cannot capture the complexities and interactions of conservation practices as applied within various locations at varying points in time throughout a watershed.

There remains a need to conduct research that evaluates the impacts of interactions among grazing land conservation practices and their biophysical setting on watershed health at the watershed scale. This program will sponsor a collection of watershed case studies that will explicitly investigate the linkages among a variety of conservation and land management practices as implemented over space and time on grazing lands and their resultant effects on watershed health. Developing these linkages will allow for a synthesis of common principles and lessons learned across grazing land watersheds that can be applied to watershed management in the future.

CEAP addresses the need for determining the environmental benefits and impacts to society of USDA's conservation programs. Because of the broad applicability across USDA, CSREES and NRCS have joined together to sponsor this solicitation. This program advances CSREES'

mission by providing research and extension/outreach education aimed at improving the quality of our nation's water resources in agricultural, rural, and urbanizing watersheds.

These grazing land projects will follow the template from the previous 13 cropland watersheds studies funded by CSREES from 2003-2006 that include social and economic analyses with a research and extension/outreach focus. Through the grazing land CEAP projects, we intend to: (a) address what we know about the impact on the hydrologic cycle from the application of conservation practices on grazing lands; and (b) fill knowledge gaps about the impact of grazing practices on watershed health that may include soil quality, plant communities and dynamics, and impacts on ecosystem services at the landscape scale.

C. Program Area Description

The intent of this RFA is to sponsor case studies at intensively monitored watersheds suitable for investigating the effectiveness of multiple conservation practices towards maintaining or improving watershed health related to grazing land use at the watershed scale. Because of the lag time in watershed health response and the period of record needed to estimate changes in watershed health condition and trends, these case studies will necessarily be based primarily on existing data (see section on watershed and data requirements below). Applications should bring to the analysis an appropriate range of quantitative interpretive techniques and geographically-based methods, including physical, statistical, and landscape modeling methods.

Applications should address the limitations in existing data with respect to its effect on quantifying the effectiveness of grazing land conservation practices. Applications should discuss not only how existing data will be analyzed, but also should address supplemental sampling designs and analytical methods for data collection during the course of the study.

The grazing land conservation practices of interest are the NRCS Core 7 practices (i.e., prescribed grazing, prescribed burning, brush management, rangeland planting, riparian herbaceous cover, upland wildlife habitat management, and pest management), plus erosion control structures and practices, and water management (i.e., water spreading, harvesting) and pasture and hayland management. Watersheds proposed for study should have a predominant land use of grazing land. Websites describing this program and the relevant management practices are listed in Part I.C. of this RFA.

The goal of this program is to determine what the measurable effects of grazing land conservation practices are on watershed health and ultimately how the application of grazing land conservation practices affect the patterns and trends in surface and/or ground water availability and quality at the watershed scale.

In the context of this goal, applications MUST describe how the proposed project will address ALL of the following questions:

1. Within the hydrologic and geomorphic setting of a watershed, how do the timing, location, and suite of implemented grazing land conservation practices affect watershed health?

2. What are the relationships among grazing land conservation practices implemented in a given watershed with respect to their impact on watershed health? Are the effects additive, contradictory, or independent?
3. What social and economic factors within the study watershed either facilitate or impede implementation or proper maintenance of conservation practices?
4. What is the optimal set or suite of grazing land conservation practices and what is their optimal placement within the watershed in order to achieve watershed health goals to address relevant grazing lands resource concerns?

Requirements for Study Watershed(s) and Data:

Investigators MUST document that the watershed(s) selected for study meet(s) the following size and data criteria:

1. Watersheds MUST have a history of watershed health impairment(s) attributable to grazing land activities and applicants must identify the grazing land resource issues and focus on impairment(s) of concern;
2. Watersheds MUST have a predominant land use of grazing land (rangeland, pastureland, grazed forestland, native and naturalized pasture, hayland, and grazed cropland);
3. Watersheds MUST be approximately 10,000 acres or larger. The experimental design should facilitate distinguishing among the watershed health effects of the multiple grazing land conservation practices implemented, biophysical features, and multiple land uses (if applicable);
4. Applicants MUST describe how the data to be used are from matching time periods and are at locations within the watershed enabling analyses that can distinguish among the watershed health effects of multiple conservation practices, biophysical features, and land uses (if applicable); and
5. Applicants should strive to have a minimum of five (5) years of geo-referenced data available for all the following data types. Preference will be given to applicants where watersheds have longer matching data histories that include:
 - Land use history;
 - Conservation practice implementation history – highlighting the identified watershed health impairment(s);
 - Vegetation monitoring data, including: (a) types of cover, (b) plant species richness, (c) vegetation structure, (d) plant production, (e) plant density, and (f) other vegetation parameters appropriate for the study;

- Soils monitoring data, including: (a) soil compaction, (b) aggregate stability, (c) infiltration capacity, (d) erodibility, and (e) other soil parameters appropriate for the study; and
- Water and channel monitoring data, including: (a) continuous (daily) stream discharge; (b) measures of channel and gully profiles; (c) identified pollutants of concern during both storm events and baseflow conditions; and (d) other water quality parameters (biological, chemical, physical) appropriate for the study.

All applications must describe:

1. The specific hypotheses to be investigated, the rationale for selecting the existing data to be used, how existing data on grazing land conservation practices and water health monitoring results will be synthesized and interpreted, and how study results and conclusions will be quantitatively tested;
2. The extension/outreach plan to communicate results of this research to appropriate audiences (i.e., farmers, ranchers, community leaders, decision-makers, and/or other stakeholders) during the project period, and the evaluation techniques used to measure the effectiveness of extension/outreach efforts;
3. How the project will incorporate spatial and temporal issues in its conclusions in order to facilitate making recommendations to grazing land managers regarding the usefulness of these conservation practices;
4. The interdisciplinary project team that includes any appropriate combination of rangeland scientists, hydrologists, statisticians, ecologists, economists, and social scientists (also identify the team member with data coordination responsibilities);
5. A plan for digital storage, retrieval, and archiving of all data collected. Data will be made publicly available at the conclusion of the grant period, in accordance with the federal data policy and the Freedom of Information Act (FOIA); and
6. Existing partnerships or collaborations with the appropriate State or local agencies responsible for the planning and implementation of agricultural conservation and management practices.

Support for eXtension:

NIWQP CEAP encourages projects that develop content suitable for delivery through eXtension (http://about.extension.org/mediawiki/files/5/51/EXECUTIVE_SUMMARY_-_March_14%2C_2006_-_YEAR_2.pdf). This content is for end users, as opposed to staff development, and must align with the eXtension Implementation Plan (available at <http://about.extension.org/wiki/Planning>). Funds may be used to contribute to existing Communities of Practice (COPs) (http://about.extension.org/wiki/Glossary_of_eXtension_Terms#Community_of_Practice_.28CoP.29) or form new COPs that focus on Water Resources (for

examples of developing COPs and guidance on forming COPs, see http://cop.extension.org/wiki/Main_Page).

Contribution to Rangeland Ecological Site Descriptions (ESDs) and State and Transition (S&T) Models:

In order to help focus their research, applicants who are likely to generate new knowledge that is relevant to the dynamics or management of grassland and/or shrubland are strongly encouraged to consult appropriate ESDs and the associated S&T conceptual models. These models are increasingly used by NRCS, Bureau of Land Management and U. S. Forest Service to guide the application of management practices. The appropriate ESDs can be identified using soil surveys together with on-site soil verification at your proposed study sites, or by contacting the NRCS State Rangeland Management Specialist. Further information is available at the following website: <http://usda-ars.nmsu.edu/esd/esdIntro.html>.

Successful applicants are strongly encouraged to recommend changes to ESDs based on the results of their research to the NRCS team responsible for reviewing potential changes. Where S&T models do not exist, opportunities may exist to contribute to their development.

All PDs for funded projects are expected to participate in the annual 5-day CSREES National Water Quality Conference each funded year. Investigators also should anticipate attending at least one additional CEAP specialty conference each year (e.g., special symposia have occurred at the Soil and Water Conservation Society annual meeting). Reasonable travel expenses relative to attending the conferences may be claimed as part of the project budget.

Web Resources:

CEAP Program

<http://www.nrcs.usda.gov/technical/nri/ceap/> - CEAP website; includes a map of existing projects funded through this and other CEAP initiatives.

CSREES

<http://www.csrees.usda.gov/water/> - for information about the CSREES water program and existing projects

<http://www.usawaterquality.org> - for more information on this program and for integrated projects funded by this program in the past

National Agricultural Library

<http://www.nal.usda.gov/wqic/> - Water Quality Information Center; includes links to CEAP bibliographies and library resources

NRCS and FSA

Information on conservation programs and technical assistance programs from NRCS and FSA:

<http://www.nrcs.usda.gov/programs/eqip/index.html>

<http://www.nrcs.usda.gov/programs/whip>

<http://www.nrcs.usda.gov/programs/cta/index.html>

<http://www.nrcs.usda.gov/technical/efotg>

<http://www.fsa.usda.gov/FSA/webapp?area=home&subject=copr&topic=crp>

USGS

<http://water.usgs.gov/nawqa/> - for information on long-term water quality data available from the USGS in agricultural watersheds

EPA

<http://www.epa.gov/waters/data/prog.html> - the list of impaired waters from EPA

PART II—AWARD INFORMATION

A. Available Funding

There is no commitment by USDA to fund any particular application or to make a specific number of awards. CSREES anticipates that support of this program in FY 2008 is approximately \$2 million. CSREES anticipates making up to three (3) CEAP awards.

B. Types of Applications

In FY 2008, only NEW applications may be submitted to the NIWQP CEAP. This is a project application that has not been previously submitted to the NIWQP. New applications will be reviewed competitively using the selection process and evaluation criteria described in Part V—Application Review Requirements.

The following is a CSREES funding estimate for FY 2008, the number of awards anticipated, maximum annual project budget, and acceptable project period for the CEAP program area within the NIWQP.

C. Project Types

The following are CSREES funding estimates for FY 2008, number of awards anticipated, maximum annual project budget, and acceptable project periods for the CEAP Program.

Program Area	Funding Estimate FY 2008	Number of Awards Anticipated FY 2008	Maximum Annual Project Budget	Acceptable Project Period
CEAP Projects - <i>Program Area Code 110.E</i>	\$2,000,000	1 - 3	\$220,000	1 – 3 yrs.

Applications that include requests for annual project budgets in excess of the maximum annual project budgets established above, or propose project periods outside the acceptable project ranges above, for the applicable Program Area, will be excluded from CSREES review.

PART III—ELIGIBILITY INFORMATION

A. Eligible Applicants

Applications may be submitted by colleges and universities (as defined in section 1404 of the NARETPA). For purposes of this program, the terms “college” and “university” mean an educational institution in any State which (1) admits as regular students only persons having a certificate of graduation, or the recognized equivalent of such a certificate, from a school providing secondary education; (2) is legally authorized within such State to provide a program of education beyond secondary education; (3) provides an educational program for which a bachelor's degree or any other higher degree is awarded; (4) is a public or other nonprofit institution; and (5) is accredited by a nationally recognized accrediting agency or association. Applications also may be submitted by 1994 Land-Grant Institutions (as defined in Part VIII.E.). A research foundation maintained by a college or university is not eligible to receive an award under this program.

Award recipients may subcontract to organizations not eligible to apply provided such organizations are necessary for the conduct of the project.

An applicant's failure to meet an eligibility criterion by the time of an application deadline will result in CSREES not accepting the application, or even though an application may be reviewed, will preclude CSREES from making an award.

B. Cost Sharing or Matching

If a grant provides a particular benefit to a specific agricultural commodity, the grant recipient is required to provide funds awarded on a dollar-for-dollar basis from non-Federal sources with cash and/or in-kind contributions. See Part IV.B. - R&R Budget for further details.

CSREES may waive the matching funds requirement for a grant if CSREES determines that: (a) the results of the project, while of particular benefit to a specific agricultural commodity, are likely to be applicable to agricultural commodities generally; or (b) the project involves a minor commodity, the project deals with scientifically important research, and the grant recipient is unable to satisfy the matching funds requirement.

PART IV—APPLICATION AND SUBMISSION INFORMATION

A. Electronic Application Package

Only electronic applications may be submitted via Grants.gov to CSREES in response to this RFA.

Prior to preparing an application, it is suggested that the PD/PI first contact an Authorized Representative (AR), also referred to as Authorized Organizational Representative (AOR) to determine if the organization is prepared to submit electronic applications through Grant.gov. If the organization is not prepared, the AR should see http://www.grants.gov/applicants/get_registered.jsp for steps for preparing to submit applications through Grants.gov.

The steps to access application materials are as follows:

1. Download and install PureEdge Viewer, a small, free program that provides access to the grant application. See http://www.grants.gov/resources/download_software.jsp#pureedge.
2. The application package must be obtained via Grants.gov, go to <http://www.grants.gov>, click on “Apply for Grants” in the left-hand column, click on “**Step 1: Download a Grant Application Package and Instructions**,” enter the funding opportunity number **USDA-CSREES-ICGP-001525** in the appropriate box and click “Download Package.” From the search results, click “Download” to access the application package.

Contained within the application package is the “[CSREES Grants.gov Application Guide: A Guide for Preparation and Submission of CSREES Applications via Grants.gov](#).” This Guide contains an introduction and general Grants.gov instructions, information about how to use a Grant Application Package in Grants.gov, and instructions on how to complete the application forms.

If assistance is needed to access the application package (e.g., downloading or navigating PureEdge forms, using PureEdge with a Macintosh computer), refer to resources available on the Grants.gov Web site first (<http://grants.gov/>). Grants.gov assistance is also available as follows:

- Grants.gov customer support
Toll Free: 1-800-518-4726
Business Hours: Monday through Friday 7:00 am – 9:00 pm Eastern Standard Time
Email: support@grants.gov

See <http://www.csrees.usda.gov/funding/electronic.html> for additional resources for applying electronically.

B. Content and Form of Application Submission

Electronic applications should be prepared following Parts V and VI of the document entitled “[A Guide for Preparation and Submission of CSREES Applications via Grants.gov.](#)” This guide is part of the corresponding application package (see Section A. of this Part). The following is **additional information** needed in order to prepare an application in response to this RFA. If there is discrepancy between the two documents, the information contained in this RFA is overriding.

Note the attachment requirements (e.g., portable document format) in Part III, Section 3. of the Guide. ANY PROPOSALS CONTAINING NON-PDF DOCUMENTS WILL BE AT RISK OF BEING EXCLUDED FROM CSREES REVIEW. Partial applications will be excluded from CSREES review. With documented prior approval, resubmitted applications will be accepted until close of business on the closing date in the RFA.

If you do not own PDF-generating software, Grants.gov provides online tools to assist applicants. Users will find a link to “Convert Documents to PDF” on <http://grants.gov/assets/PDFConversion.pdf>.

1. SF 424 R&R Cover Sheet

Information related to the questions on this form is dealt with in detail in Part V.2. of the CSREES Grants.gov Application Guide.

2. R&R Other Project Information Form

Information related to the questions on this form is dealt with in detail in Part V.3. of the CSREES Grants.gov Application Guide.

a. Field 6. Project Summary/Abstract. The summary should also include the relevance of the project to the goals of NIWQP CEAP.

b. Field 7. Project Narrative (formerly Project Description).

PLEASE NOTE: The Project Narrative shall not exceed **twenty (20)** pages of written text, figures and tables. This maximum (**20** pages) has been established to ensure fair and equitable competition. The Project Narrative must include all of the following:

(a) Introduction: Include a clear statement of the long-term goal(s) and supporting objectives of the proposed activities. Summarize the body of knowledge or past activities which substantiate the need for the proposed project. Describe ongoing or recently completed significant activities related to the proposed activity, including the work of key project personnel. Include preliminary data and/or information pertinent to the proposed project. In addition, include in-depth information on the following, when applicable:

(1) Estimates of the magnitude of the issues and their relevance to stakeholders and to ongoing State-Federal food and agricultural research, education, and extension programs;

(2) Role of the stakeholders in problem identification, planning, and implementation and evaluation as appropriate; and

(3) Reasons for having the work performed at the proposing institution.

(b) Objectives: Include clear, concise, complete, and logically arranged statement(s) of specific aims of the proposed effort. CEAP projects must include specific objectives for research, and extension/outreach (as appropriate).

(c) Methods: Explicitly state the procedures or methods to be applied to the proposed effort. Include, but do not necessarily limit to:

(1) Description of stakeholder involvement in problem identification, planning, implementation and evaluation;

(2) Description of the proposed project activities in the sequence in which it is planned to carry them out;

(3) Techniques to be employed, including their feasibility and rationale for their use in this project;

(4) Kinds of results expected;

(5) Means by which extension and education activities will be evaluated;

(6) Means by which data will be analyzed and interpreted;

(7) Details of plans to communicate results to stakeholders and the public;

(8) Pitfalls that might be encountered; and

(9) Limitations to proposed procedures.

(d) Project Timetable: Outline all important phases as a function of time, year by year, for the entire project, including periods beyond the grant funding period. Include specific, measurable accomplishments for each year of NIWQP CEAP funding.

3. R&R Senior/Key Personnel Profile (Expanded)

Information related to the questions on this form is dealt with in detail in Part V.4. of the CSREES Grants.gov Application Guide.

Also, **you must attach** “Current and Pending Support” information. See CSREES Grants.gov Application Guide, Part 4.3. for guidelines and information format for each senior/key person identified above. **Note: Even if no funding is currently reported under the “Active” section of this attachment, you must still list information for this grant application under the “Pending” section of this attachment for each senior/key person identified.**

4. R&R Personal Data – Optional

As noted in Part V.5. of the CSREES Grants.gov Application Guide, the submission of this information is voluntary and is not a precondition of award. If completing the information, **do not enter any data in the field requesting the social security number.**

5. R&R Budget

Information related to the questions on this form is dealt with in detail in Part V.6. of the CSREES Grants.gov Application Guide.

Matching.

If an applicant concludes that matching funds are not required as specified under Part III.B., the R&R Budget must be utilized and a justification should be included in the Budget Narrative. CSREES will consider this justification when ascertaining final matching requirements or determining if required matching can be waived. CSREES retains the right to make final determinations regarding matching requirements.

For those grants where matching funds are required as specified under Part III.B., the R&R Budget (Total Fed and Non-Fed) must be utilized. Applications should include written verification of commitments of matching support (including both cash and in-kind contributions) from third parties. Written verification means:

For any third party cash contributions, a separate pledge agreement for each donation, signed by the authorized organizational representative of the donor organization and the applicant organization, which must include: (1) the name, address, and telephone number of the donor; (2) the name of the applicant organization; (3) the title of the project for which the donation is made; (4) the dollar amount of the cash donation; and (5) a statement that the donor will pay the cash contribution during the grant period.

For any third party in-kind contributions, a separate pledge agreement for each contribution, signed by the authorized organizational representatives of the donor organization and the applicant organization, which must include: (1) the name, address, and telephone number of the donor; (2) the name of the applicant organization; (3) the title of the project for which the donation is made; (4) a good faith estimate of the current fair market value of the third party in-kind contribution; and (5) a statement that the donor will make the contribution during the grant period.

The sources and amount of all matching support from outside the applicant institution should be summarized on a separate page and attached in the SF 424 (R&R) Other Project Information, Field 11. In addition, each source of non-Federal matching funds must be accompanied by written verification of commitment of matching support (i.e., a signed letter from the AR of the source of matching funds; including both cash and in-kind contributions) from third parties. Include each of these signed matching letters, as well, as attachments in Field #11 of the SF 424 (R&R) Other Project Information form.

The value of applicant contributions to the project shall be established in accordance with the applicable cost principles. Applicants should refer to OMB Circular A-21, Cost Principles for Educational Institutions, for further guidance and other requirements relating to matching and allowable costs.

6. Supplemental Information Form

Information related to the questions on this form is dealt with in detail in Part VI.1. of the CSREES Grants.gov Application Guide.

a. Program Area Code (Field 2 on the Form). Enter the appropriate program area code name and the program area code exactly as it appears in the table below. Note that the Program Area Code is case-sensitive. Do not include spaces in the Program Area Code. This data field is used to electronically route your proposal to the correct program.

Program Area Code Name	Program Area Code
Conservation Effects Assessment Program	110.E

b. Conflict of Interest List (Field 8 on the Form). A conflict of interest list is required under this program.

C. Submission Date and Time

Instructions for submitting an application are included in Part IV, Section 1.9 of the CSREES Grants.gov Application Guide.

Applications must be received by Grants.gov by COB on **June 17, 2008** (5:00 p.m. Eastern Time). Applications received after this deadline will normally not be considered for funding.

Correspondence regarding submitted applications will be sent using e-mail. Therefore, applicants are strongly encouraged to provide accurate e-mail addresses, where designated, on the SF-424 R&R Application for Federal Assistance.

If the AR has not received correspondence **from CSREES** regarding a submitted application within 30 days of submission of the application, please contact the Agency Contact identified in Part VII of the applicable and request the proposal number assigned to the application. **Failure to do so may result in the application not being considered for funding by the peer review panel. Once the application has been assigned a proposal number, this number should be cited on all future correspondence.**

D. Funding Restrictions

CSREES has determined that grant funds awarded under this authority may not be used for the renovation or refurbishment of research, education, or extension space; the purchase or

installation of fixed equipment in such space; or the planning, repair, rehabilitation, acquisition, or construction of buildings or facilities.

Section 706 of the FY 2008 Consolidated Appropriations Act (Public Law 110-161) limits indirect costs to 20 percent of the total Federal funds provided under each award. Therefore, when preparing budgets, applicants should limit their requests for recovery of indirect costs to the lesser of their institution's official negotiated indirect cost rate or the equivalent of 20 percent of total Federal funds awarded. Another method of assessing the maximum allowable indirect cost is to calculate 25 percent of the total direct costs. If no rate has been negotiated, a reasonable dollar amount (equivalent to or less than 20 percent of total Federal funds requested) in lieu of indirect costs may be requested, subject to approval by USDA. This same indirect cost limitation applies to subcontracts.

E. Other Submission Requirements

The applicant should follow the submission requirements noted in the document entitled “A Guide for Preparation and Submission of CSREES Applications via Grants.gov.”

PART V—APPLICATION REVIEW REQUIREMENTS

A. General

Each application will be evaluated in a two (2) part process. First, each application will be screened to ensure that it meets the administrative requirements as set forth in this RFA. Second, applications that meet these requirements will be technically evaluated by a review panel.

Reviewers will be selected based upon training and experience in relevant scientific, extension, or education fields, taking into account the following factors: (a) The level of relevant formal scientific, technical education, or extension experience of the individual, as well as the extent to which an individual is engaged in relevant research, education, or extension activities; (b) the need to include as reviewers experts from various areas of specialization within relevant scientific, education, or extension fields; (c) the need to include as reviewers other experts (e.g., producers, range or forest managers/operators, and consumers) who can assess relevance of the applications to targeted audiences and to program needs; (d) the need to include as reviewers experts from a variety of organizational types (e.g., colleges, universities, industry, state and Federal agencies, private profit and non-profit organizations) and geographic locations; (e) the need to maintain a balanced composition of reviewers with regard to minority and female representation and an equitable age distribution; and (f) the need to include reviewers who can judge the effective usefulness to producers and the general public of each application.

B. Evaluation Criteria

The evaluation criteria below will be used in reviewing applications submitted in response to this RFA:

Applications that strongly address the questions supporting the program goal and meet the requirements for study watershed(s) and data will be more likely to receive NIWQP CEAP funding.

1. Technical merit of all aspects of the application, including research and extension/outreach components, as appropriate.

- (a) Adequacy and appropriateness of objectives for research and extension/outreach, as appropriate;
- (b) Extent to which proposed work addresses identified stakeholder needs and watershed health issues;
- (c) Suitability and feasibility of methodology for conducting work;
- (d) Reasonability of time allocated for attainment of objectives;
- (e) Qualifications of key project personnel;
- (f) Institutional experience and competence in proposed area of work; and
- (g) Adequacy of available support personnel, equipment, and facilities.

2. Relevance of proposed project to NIWQP CEAP purpose and goal (see Part I.B.).

- (a) Relationship of project objectives to the long-term goal of NIWQP CEAP and questions of interest as described in Part II, C ;
- (b) Transferability of project results or developed materials beyond the project scale;
- (c) Evidence of partnerships with other disciplines and institutions integral to the success of the analysis of conservation practices (Federal, State, other);
- (d) Quality of the plan to deliver and evaluate an extension/outreach program that will lead to measurable outcome-oriented impacts on watershed health and ultimately on water resources;
- (e) Suitability of the evaluation of social and economic factors (e.g., cost and benefit) affecting implementation of the appropriate conservation practices; and
- (f) Probability of success of the project.

3. Appropriateness of the study watershed(s) and data:

- (a) Extent to which proposed work achieves integration of research and extension/outreach;
- (b) Degree to which spatial and temporal dimensions are incorporated in design of analyses and communication efforts for extension/outreach;
- (c) Adequacy of the long-term data set to be used, and the data management and analysis plan including the adequacy of the proposed modeling effort to achieve project goals;
- (d) Degree to which conservation efforts have been monitored and evaluated;
- (e) Identification of the cause of watershed health degradation;
- (f) Suitability of scale; and
- (g) Likelihood that project will fill knowledge gaps that are critical to the development of conservation practices and programs and improve the quality and availability of the Nation's water resources.

C. Conflicts of Interest and Confidentiality

During the peer evaluation process, extreme care will be taken to prevent any actual or perceived conflicts of interest that may impact review or evaluation. For the purpose of determining conflicts of interest, the academic and administrative autonomy of an institution shall be determined by reference to the current Higher Education Directory, published by Higher Education Publications, Inc., 6400 Arlington Boulevard, Suite 648, Falls Church, Virginia 22042. Phone: (703) 532-2300. Web site: <http://www.hepinc.com>.

Names of submitting institutions and individuals, as well as application content and peer evaluations, will be kept confidential, except to those involved in the review process, to the extent permitted by law. In addition, the identities of peer reviewers will remain confidential throughout the entire review process. Therefore, the names of the reviewers will not be released to applicants.

D. Organizational Management Information

Specific management information relating to an applicant shall be submitted on a one time basis, with updates on an as needed basis, as part of the responsibility determination prior to the award of a grant identified under this RFA, if such information has not been provided previously under this or another CSREES program. CSREES will provide copies of forms recommended for use in fulfilling these requirements as part of the preaward process. Although an applicant may be eligible based on its status as one of these entities, there are factors which may exclude an applicant from receiving Federal financial and non-financial assistance and benefits under this program (e.g., debarment or suspension of an individual involved or a determination that an applicant is not responsible based on submitted organizational management information).

PART VI—AWARD ADMINISTRATION

A. General

Within the limit of funds available for such purpose, the awarding official of CSREES shall make grants to those responsible, eligible applicants whose applications are judged most meritorious under the procedures set forth in this RFA. The date specified by the awarding official of CSREES as the effective date of the grant shall be no later than September 15 of the Federal fiscal year in which the project is approved for support and funds are appropriated for such purpose, unless otherwise permitted by law. It should be noted that the project need not be initiated on the grant effective date, but as soon thereafter as practical so that project goals may be attained within the funded project period. All funds granted by CSREES under this RFA shall be expended solely for the purpose for which the funds are granted in accordance with the approved application and budget, the regulations, the terms and conditions of the award, the applicable Federal cost principles, and the Department's assistance regulations (parts 3015 and 3019 of 7 CFR).

B. Award Notice

The award document will provide pertinent instructions and information including, at a minimum, the following:

- (1) Legal name and address of performing organization or institution to whom the Administrator has issued an award under the terms of this request for applications;
- (2) Title of project;
- (3) Name(s) and institution(s) of PDs chosen to direct and control approved activities;
- (4) Identifying award number assigned by the Department;
- (5) Project period, specifying the amount of time the Department intends to support the project without requiring recompetition for funds;
- (6) Total amount of Departmental financial assistance approved by the Administrator during the project period;
- (7) Legal authority(ies) under which the award is issued;
- (8) Appropriate Catalog of Federal Domestic Assistance (CFDA) number;
- (9) Applicable award terms and conditions (see <http://www.csrees.usda.gov/business/awards/awardterms.html> to view CSREES award terms and conditions);

(10) Approved budget plan for categorizing allocable project funds to accomplish the stated purpose of the award; and

(11) Other information or provisions deemed necessary by CSREES to carry out its respective awarding activities or to accomplish the purpose of a particular award.

C. Administrative and National Policy Requirements

Several Federal statutes and regulations apply to grant applications considered for review and to project grants awarded under this program. These include, but are not limited to:

7 CFR Part 1, subpart A—USDA implementation of the Freedom of Information Act.

7 CFR Part 3—USDA implementation of OMB Circular No. A-129 regarding debt collection.

7 CFR Part 15, subpart A—USDA implementation of Title VI of the Civil Rights Act of 1964, as amended.

7 CFR Part 331 and 9 CFR Part 121—USDA implementation of the Agricultural Bioterrorism Protection Act of 2002.

7 CFR Part 3015—USDA Uniform Federal Assistance Regulations, implementing OMB directives (i.e., OMB Circular Nos. A-21 and A-122, now codified at 2 CFR Parts 220 and 230) and incorporating provisions of 31 U.S.C. 6301-6308 (formerly the Federal Grant and Cooperative Agreement Act of 1977, Pub. L. No. 95-224), as well as general policy requirements applicable to recipients of Departmental financial assistance.

7 CFR Part 3017—USDA implementation of Governmentwide Debarment and Suspension (Nonprocurement) and 7 CFR Part 3021—Governmentwide Requirements for Drug Free Workplace (Grants).

7 CFR Part 3018—USDA implementation of Restrictions on Lobbying. Imposes prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans.

7 CFR Part 3019—USDA implementation of OMB Circular A-110, Uniform Administrative Requirements for Grants and Other Agreements With Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations.

7 CFR Part 3052—USDA implementation of OMB Circular No. A-133, Audits of States, Local Governments, and Non profit Organizations.

7 CFR Part 3407—CSREES procedures to implement the National Environmental Policy Act of 1969, as amended.

29 U.S.C. 794 (section 504, Rehabilitation Act of 1973) and 7 CFR Part 15b (USDA implementation of statute) —prohibiting discrimination based upon physical or mental handicap in Federally assisted programs.

35 U.S.C. 200 et seq. —Bayh Dole Act, controlling allocation of rights to inventions made by employees of small business firms and domestic nonprofit organizations, including universities, in Federally assisted programs (implementing regulations are contained in 37 CFR Part 401).

D. Expected Program Outputs and Reporting Requirements

The intent of the NIWQP is to have CEAP projects participate in, coordinate with, and share suitable information with the appropriate Regional Water Resource program. For further details, see: www.usawaterquality.org. These interactions are intended to expand the geographic scope and impact of CEAP projects to a broader regional audience. Award recipients also are expected to provide copies of annual reports and updates to the appropriate Regional Water Resource Project Director. Contact information for the Regional Water Resource Project Director will be provided at the time of the award.

If funded, Project Directors (PDs/PIs) will be expected to describe all physical, sociological, ecological, statistical, or landscape modeling methods used or developed to assist in interpreting the data (e.g., model lineage, data requirements, and sensitivity), such that other users could apply the same techniques elsewhere.

Annually, each grantee must submit a one (1) to two (2) page technical Summary of Work to the CSREES National Program Leader for Rangeland and Grassland Ecosystems (see Part VII Agency Contacts) and to the appropriate Regional Water Resource Project Director (see Part I.C. for more information). Once a project is complete, the grantee is required to submit a Final Technical Report to the CSREES National Program Leader for Rangeland and Grassland Ecosystems and to the appropriate Regional Water Resource Project Director. The Final Technical Report should summarize all work conducted and detail outcomes, accomplishments, and outputs of funded work. This report should not exceed 15 single-spaced, typed pages.

Grantees also must participate in the 5-day CSREES National Water Quality Conference each funded year. Investigators also should anticipate attending at least one additional CEAP specialty conference each year (e.g., special symposia have occurred at the Soil and Water Conservation Society annual meeting). Project results and outcomes are presented and discussed. Reasonable travel expenses relative to attending the conferences may be claimed as part of the project budget.

Grantees are required to submit initial project information and annual and summary reports via CSREES' Current Research Information System (CRIS). The CRIS database contains narrative project information, progress/impact statements, and final technical reports that are made available to the public. For applications recommended for funding, instructions on preparation and submission of project documentation will be provided to the applicant by the Agency Contact. **Documentation must be submitted to CRIS (OMB Control No. 0524-0042) before**

CSREES funds will be released. Project reports will be requested by the CRIS office when required. For more information about CRIS, visit <http://cris.csrees.usda.gov>.

PART VII—AGENCY CONTACTS

Applicants and other interested parties are encouraged to contact Dr. James Dobrowolski; National Program Leader for Rangeland and Grassland Ecosystems; Natural Resources and Environment Unit; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; STOP 2210; 1400 Independence Avenue, SW; Washington, DC 20250-2210; Telephone: (202) 401-5016; Fax: (202) 401-1706; E-mail: jdobrowolski@csrees.usda.gov or Mr. Bruce Mertz, Program Specialist, Natural Resources and Environment Unit; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; STOP 2210; 1400 Independence Avenue, SW; Washington, DC 20250-2210; Telephone: (202) 401-4601; Fax: (202) 401-1706; E-mail: bmertz@csrees.usda.gov.

PART VIII—OTHER INFORMATION

A. Access to Review Information

Copies of reviews, not including the identity of reviewers, and a summary of the panel comments will be sent to the applicant PD after the review process has been completed.

B. Use of Funds; Changes

1. Delegation of Fiscal Responsibility

Unless the terms and conditions of the award state otherwise, the awardee may not in whole or in part delegate or transfer to another person, institution, or organization the responsibility for use or expenditure of award funds.

2. Changes in Project Plans

a. The permissible changes by the awardee, PD(s), or other key project personnel in the approved project shall be limited to changes in methodology, techniques, or other similar aspects of the project to expedite achievement of the project's approved goals. If the awardee or the PD(s) is uncertain as to whether a change complies with this provision, the question must be referred to the Authorized Departmental Officer (ADO) for a final determination. The ADO is the signatory of the award document, not the program contact.

b. Changes in approved goals or objectives shall be requested by the awardee and approved in writing by the ADO prior to effecting such changes. In no event shall requests for such changes be approved which are outside the scope of the original approved project.

c. Changes in approved project leadership or the replacement or reassignment of other key project personnel shall be requested by the awardee and approved in writing by the ADO prior to effecting such changes.

d. Transfers of actual performance of the substantive programmatic work in whole or in part and provisions for payment of funds, whether or not Federal funds are involved, shall be requested by the awardee and approved in writing by the ADO prior to effecting such transfers, unless prescribed otherwise in the terms and conditions of the award.

e. The project period may be extended by CSREES without additional financial support, for such additional period(s) as the ADO determines may be necessary to complete or fulfill the purposes of an approved project, but in no case shall the total project period exceed five years. Any extension of time shall be conditioned upon prior request by the awardee and approval in writing by the ADO, unless prescribed otherwise in the terms and conditions of award.

f. Changes in Approved Budget: Unless stated otherwise in the terms and conditions of award, changes in an approved budget must be requested by the awardee and approved in writing by the ADO prior to instituting such changes if the revision will involve transfers or expenditures of

amounts requiring prior approval as set forth in the applicable Federal cost principles, Departmental regulations, or award.

C. Confidential Aspects of Applications and Awards

When an application results in an award, it becomes a part of the record of CSREES transactions, available to the public upon specific request. Information that the Secretary determines to be of a confidential, privileged, or proprietary nature will be held in confidence to the extent permitted by law. Therefore, any information that the applicant wishes to have considered as confidential, privileged, or proprietary should be clearly marked within the application. The original copy of an application that does not result in an award will be retained by the Agency for a period of three years. Other copies will be destroyed. Such an application will be released only with the consent of the applicant or to the extent required by law. An application may be withdrawn at any time prior to the final action thereon.

D. Regulatory Information

For the reasons set forth in the final Rule related Notice to 7 CFR part 3015, subpart V (48 FR 29114, June 24, 1983), this program is excluded from the scope of the Executive Order 12372 which requires intergovernmental consultation with State and local officials. Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35), the collection of information requirements contained in this Notice have been approved under OMB Document No. 0524-0039.

E. Definitions

For the purpose of this program, the following definitions are applicable:

1890 Land-Grant Institution means one of those institutions eligible to receive funds under the Act of August 30, 1890 (26 Stat. 419, chapter 841, 7 U.S.C. 321 et seq.) including Tuskegee University and West Virginia State University.

1994 Land-Grant Institution means one of those institutions as defined in 532 of the Equity in Education Land-Grant Act of 1994 (7 U.S.C. 301 note) as amended. These institutions are commonly referred to as Tribal Colleges or Tribal Universities.

Administrator means the Administrator of the Cooperative State Research, Education, and Extension Service (CSREES) and any other officer or employee of the Department to whom the authority involved is delegated.

Authorized Departmental Officer means the Secretary or any employee of the Department who has the authority to issue or modify grant instruments on behalf of the Secretary.

Authorized Representative means the president or chief executive officer of the applicant organization or the official, designated by the president or chief executive officer of the applicant organization, who has the authority to commit the resources of the organization.

Budget period means the interval of time (usually 12 months) into which the project period is divided for budgetary and reporting purposes.

Cash contributions means the applicant's cash outlay, including the outlay of money contributed to the applicant by non-Federal third parties.

Department or USDA means the United States Department of Agriculture.

Education activity means formal classroom instruction, laboratory instruction, and practicum experience in the food and agricultural sciences and other related matters such as faculty development, student recruitment and services, curriculum development, instructional materials and equipment, and innovative teaching methodologies.

Extension activity means an act or process that delivers science-based knowledge and informal educational programs to people, enabling them to make practical decisions.

Grant means the award by the Secretary of funds to an eligible organization or individual to assist in meeting the costs of conducting, for the benefit of the public, an identified project which is intended and designed to accomplish the purpose of the program as identified in these guidelines.

Grantee means an organization designated in the grant award document as the responsible legal entity to which a grant is awarded.

Integrated means to bring the three components of the agricultural knowledge system (research, education, and extension) together around a problem area or activity.

Matching means that portion of allowable project costs not borne by the Federal Government, including the value of in-kind contributions.

Peer review means an evaluation of a proposed project for scientific or technical quality and relevance performed by experts with the scientific knowledge and technical skills to conduct the proposed work or to give expert advice on the merits of a proposal.

Project director means the single individual designated by the grantee in the grant application and approved by the Secretary who is responsible for the direction and management of the project, also known as a principal investigator for research activities.

Prior approval means written approval evidencing prior consent by an authorized departmental officer as defined above.

Project means the particular activity within the scope of the program supported by a grant award.
Project period means the period, as stated in the award document and modifications thereto, if any, during which Federal sponsorship begins and ends.

Research activity means a scientific investigation or inquiry that results in the generation of knowledge.

Secretary means the Secretary of Agriculture and any other officer or employee of the Department to whom the authority involved is delegated.

Third party in-kind contributions means non-cash contributions of property or services provided by non-Federal third parties, including real property, equipment, supplies and other expendable property, directly benefiting and specifically identifiable to a funded project or program.

Total integrated, multifunctional research, education, and extension approach means that the combination of grants (although the individual grants may involve only research, education, or extension activities or a combination thereof) awarded under the fiscal year's program components will work together to address the priorities in United States agriculture as determined by the Secretary of Agriculture in consultation with the Advisory Board, that involve integrated research, extension, and education activities.

Urbanizing means areas of agricultural and rural watersheds that are experiencing rapidly increasing land development pressure including but not limited to development for low, medium, and high density housing, industrial and commercial sites, and the infrastructure (roads, highways, utilities, etc.) needed to support this increased land development.